

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Michael Goessel et al.

Serial No.: 10/577,288

Filed: April 24, 2006

Docket No.: I431.135.101/FIN516PCT/US

Title: EVALUATION CIRCUIT AND METHOD FOR DETECTING AND/OR LOCATING FAULTY DATA WORDS IN A DATA STREAM T_N

REMARKS

The following remarks are made in response to the Final Office Action mailed January 4, 2010. Claim 53 has been allowed. Claims 35-52 and 55-58 were rejected. With this Response, claim 35 has been amended. Claims 35-53 and 55-58 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 103

Claims 35-37, 39, 41-45, 48-52 and 55 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hasegawa et al. U.S. Publication 2004/0246337 (herein Hasegawa), in view of Meaney, U.S. Patent 6,055,660 (herein Meaney). Applicants respectfully traverse these rejections.

To establish *prima facie* obviousness, all claim limitations must be considered. MPEP 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385, (CCPA 1970)). Claim 35, as amended, includes

where z represents state vectors and A and B represent the state matrices of the linear automaton circuits, where the state matrices A and B can be inverted, and where a dimension L of the state vectors z is $\geq k$, wherein $A \neq B$,

In Hasegawa, data coming from the integrated circuit to be tested is compressed in the pattern determination mode as shown in figure 4 and the scan claim determination mode as shown in Figure 5.

As understood by Applicants, the Office Action proposes modifying the device disclosed in the Hasegawa reference to implement the MISRs of Meaney into blocks 16 and 2. It appears the Office Action suggests block 12 of Meaney would be inserted into block 16 of Hasagawa and block 12' of Meaney would be inserted in block 2 of Hasegawa. However, block 12 and block 12' of Meaney are MISRs that have the *same* function. Accordingly, the respective matrix of MISR 12 would be the same as the matrix of MISR 12'.

Therefore, the blocks 16 and 2 of Hasegawa now including the MSIRs 12 and 12', respectively, would have the same function and same output. Thus, there would be no need for

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both blocks 16 and 2. Meaney describes comparing two different buses using two MISRs and discloses MISRs that are the same.

Claim 35 includes, “the first linear automaton circuit and the second linear automaton circuit each have inputs that are commonly connected.” If buses A and B of Meaney were commonly connected as the Office Action appears to suggest, there would never be an error signal because the functions of MISR 12 and MISR 12’ are the same. The combination of Meaney and Hasegawa therefore fails to disclose state matrices A and B wherein $A \neq B$.

Moreover, if the inputs to bus A and B of Meaney were commonly connected, it appears the disclosed device would not function properly. MPEP 2143.01 notes, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

For at least these reasons, Applicants believe the Office Action fails to establish *prima facie* obviousness of claim 35, as well as claims 36, 37, 39, 41-45, 48-52 and 55 dependent thereon.

The remaining claims were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hasegawa and Meaney, in view of additional prior art. The remaining rejected claims all ultimately depend on claim 35 and are therefore allowable for at least the same reasons.

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CONCLUSION

In view of the above, Applicant respectfully submits that all of the pending claims are in form for allowance. Therefore, reconsideration and withdrawal of the rejections and allowance of the claims are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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